

U.S.S.N. 09/588,788

Claim Amendments

Please amend claims 1, 4, 6, and 16 as follows:

Please add new claims 17 and 18 as follows:

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Listing of Claims

1. (currently amended) A method for fabricating an inductor structure with an enhanced Q value comprising:

providing a substrate;

forming over the substrate a planar spiral conductor layer comprising a single spiral to form a planar spiral inductor, wherein a successive series of loops within the planar spiral conductor layer is formed with a progressive and discontinuous variation in progressing from a center of said spiral defined by a first loop to a periphery of said series of loops at least one of:

a series of progressive stepwise changes in linewidths to form a series of discrete linewidths ~~of~~ for the successive series of loops; and

a series of progressive stepwise changes in spacings separating the successive series of loops.

2. - 3. (canceled)

4. (currently amended) A method for fabricating an inductor structure with an enhanced Q value comprising:

providing a substrate;

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forming over the substrate a planar spiral conductor layer to form a planar spiral inductor, wherein a successive series of loops within the planar spiral conductor layer is formed with a progressive and discontinuous variation ~~in~~ progressing in any direction from a center of said spiral defined by a first loop to a periphery of said series of loops at least one of:

a series of progressive stepwise changes in linewidths to form a series of discrete linewidths ~~of~~ for the successive series of loops; and

a series of progressive stepwise changes in spacings separating the successive series of loops;

wherein the successive series of loops is formed in a shape selected from the group consisting of a triangle, a square, a rectangle, a higher order polygon, a uniform ellipse and a circle.

5. (original) The method of claim 1 wherein the planar spiral conductor layer is formed of a conductor material selected from the group consisting of non-magnetic metal, non-magnetic metal alloy, magnetic metal, magnetic metal alloy, doped polysilicon and polycide conductor materials, and laminates thereof.

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6. (currently amended) The method of claim 1 wherein the ~~variation in the series of linewidths of the successive series of loops is an increasing progression of linewidth~~ progressive stepwise changes to form a series of discrete linewidths increases from ~~[[a]]~~ the first loop which defines the center of the planar spiral inductor having a comparatively narrow linewidth to a final loop which defines the perimeter of the planar spiral inductor having a comparatively wide linewidth.

7. (original) The method of claim 6 wherein the comparatively narrow linewidth is from about 7 to about 10 microns and the comparatively wide line width is from about 17 to about 21 microns.

8. (currently amended) The method of claim 1 wherein the successive series of loops of spirals comprising the single spiral comprises from about 1 to about 8 loops.

9. - 15. (canceled)

16. (currently amended) The method of claim 1 wherein the progressive and discontinuous variation ~~is a~~ comprises progressively increasing or decreasing stepwise changes ~~discontinuous variation~~.

17. (new) The method of claim 1, wherein the successive series of loops is formed in a shape selected from the group consisting of

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a triangle, a square, a rectangle, a higher order polygon, a uniform ellipse and a circle.

18. (new) The method of claim 4 wherein the progressive stepwise changes to form a series of discrete linewidths increases from a first loop which defines the center of the planar spiral inductor having a comparatively narrow linewidth to a final loop which defines the perimeter of the planar spiral inductor having a comparatively wide linewidth.